

Title (en)
Hydraulic power steering system with noise attenuation

Title (de)
Hydraulische Servolenkung mit Geräuschverminderung

Title (fr)
Direction assistée hydraulique avec atténuation du bruit

Publication
EP 0873931 A3 20000913 (EN)

Application
EP 98107515 A 19980424

Priority
US 84757197 A 19970424

Abstract (en)
[origin: EP0873931A2] An apparatus comprises a reservoir (14) containing hydraulic fluid (68), a gear pump (16) with a suction hole (74), and a hydraulic muffler (18). The gear pump (16) has gears (78) with meshing teeth (80) that convey a flow of hydraulic fluid (68) from the reservoir (14) into the pump (16) through the suction hole (74). The muffler (18) attenuates noise by damping flow rate fluctuations that are caused by the meshing gear teeth (80). The muffler (18) includes a compliant element (92) and a fluid inertia structure (90) interposed between the suction hole (74) and the fluid (68) in the reservoir (14). The inertia structure (90) responds to the flow rate fluctuations by directing corresponding hydraulic pressure fluctuations to deflect the compliant element (92). As a result, noise is attenuated upon deflection of the compliant element (92). <IMAGE>

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IPC 8 full level
B62D 5/07 (2006.01); **B62D 5/06** (2006.01); **F04C 15/00** (2006.01)

CPC (source: EP US)
B62D 5/062 (2013.01 - EP US); **F04C 15/0049** (2013.01 - EP US)

Citation (search report)

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